

10/614,397

H0422

REMARKS

Claims 1-20 are pending in the application. Claims 1, 9, 13, 16, 18, and 20 have been amended in part to resolve objections and/or rejections regarding to format cited by the Examiner. The Applicants note the allowable subject matter of claims 5, 10, 11, 16, 18, and 20 with appreciation. The allowable subject matter of claim 10 has been incorporated into claim 1. Favorable reconsideration in light of the amendments and the remarks which follow is respectfully requested.

I. Objection of Claims 16, 18, and 20

Claims 16, 18, and 20 are objected to due to minor informalities. As stated above, claims 16, 18, and 20 have been amended accordingly to resolve such informalities. Thus, Applicants respectfully request withdrawal of the objections.

II. Rejection of Claims 9 and 13 Under 35 U.S.C. §112, second paragraph

Claims 9 and 13 have been rejected to under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out the invention and distinctly claim the subject matter which Applicant regards as the invention. In particular, claim 9 contains trade names and claim 13 is vague and indefinite. Claims 9 and 13 have been amended as shown above to resolve the Examiner's rejections. Thus, withdrawal of the rejection of the claims is respectfully requested.

III. Rejection of Claims 1, 3, and 7 Under 35 U.S.C. §102(b)

Claims 1, 3, and 7 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ichikawa *et al.* (U.S. Patent No. 6,344,412). For at least the foregoing reasons, withdrawal of the rejection is respectfully requested.

Claim 1 has been amended by incorporating the allowable subject of claim 10. For a prior art reference to anticipate, 35 U.S.C. §102 requires that "each and

10/614,397

H0422

every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (quoting *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). As acknowledged by the Examiner, Ichikawa *et al.* does not teach or disclose a method of forming a polymer memory device in a via that comprises, among other features, polishing the top electrode layer so as to form a top electrode plug in the upper portion of the via. Thus, Ichikawa *et al.* does not teach or disclose each and every element of the invention as recited in the amended claims. In view of the foregoing, the rejection should be withdrawn.

IV. Rejection of Claims 4 and 8 Under 35 U.S.C. §103(a)

Claims 4 and 8 stand rejected under 35 U.S.C. §103(a) as being anticipated by Ichikawa *et al.* (U.S. Patent No. 6,344,412) in view of Watanabe *et al.* (U.S. Patent No. 6,214,749). For at least the foregoing reasons, withdrawal of the rejection is respectfully requested.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claims 4 and 8 depend from claim 1, which has been amended as discussed above. Thus, the arguments set forth, *supra*, with respect to Ichikawa *et al.* apply

10/614,397

H0422

herein as well. Applicants respectfully submit that Watanabe *et al.* does not cure the aforementioned deficiencies of Ichikawa *et al.* In fact, the Examiner implicitly recognizes that Watanabe *et al.* does not teach or suggest the method of forming a polymer memory device as recited in amended claim 1, as it is merely relied upon for its apparent teaching of using aluminum, copper, gold, silicide, titanium nitride, etc. for forming a wiring layer. Moreover, Watanabe *et al.* in combination with Ichikawa *et al.* or alone does not teach or suggest each and every element of the present invention. Thus, the rejection should be withdrawn.

V. Rejection of Claims 2 and 12-13 Under 35 U.S.C. §103(a)

Claims 2 and 12-13 stand rejected under 35 U.S.C. §103(a) as being anticipated by Ichikawa *et al.* (U.S. Patent No. 6,344,412) in view of Lee *et al.* (U.S. Patent No. 6,214,423). For at least the foregoing reasons, withdrawal of the rejection is respectfully requested.

Claims 2 and 12-13 depend from claim 1, which has been amended as discussed above in Section III of this Reply. Thus, the arguments set forth, *supra*, with respect to Ichikawa *et al.* apply herein as well. The Examiner relies on Lee *et al.* for an apparent teaching to employ a damascene process, to form a barrier metal layer, and to form shallow trench isolation regions. However, Lee *et al.* does not cure the aforementioned deficiencies of Ichikawa *et al.* More specifically, Lee *et al.* does not teach or suggest the method of forming a polymer memory device as recited in amended claim 1. Hence, Lee *et al.* either in combination with Ichikawa *et al.* or alone fails to teach or suggest each and every element of the present invention. Thus, the rejection should be withdrawn.

VI. Rejection of Claim 6 Under 35 U.S.C. §103(a)

Claim 6 stands rejected under 35 U.S.C. §103(a) as being anticipated by Ichikawa *et al.* (U.S. Patent No. 6,344,412) in view of Bailey (U.S. Patent No.

10/614,397

H0422

6,430,810). For at least the foregoing reasons, withdrawal of the rejection is respectfully requested.

Claim 6 depends from claim 1, which has been amended as discussed above in Section III of this Reply. Thus, the arguments set forth, *supra*, with respect to Ichikawa *et al.* apply herein as well. The Examiner relies on Bailey for its apparent teaching of polyanilines, polythiophenes, polyphenylenevinylenes or polypyrroles. However, Bailey does not otherwise cure the aforementioned deficiencies of Ichikawa *et al.* More specifically, Bailey does not teach or suggest the method of forming a polymer memory device as recited in amended claim 1. Hence, Bailey either in combination with Ichikawa *et al.* or alone fails to teach or suggest each and every element of the present invention. Thus, the rejection should be withdrawn.

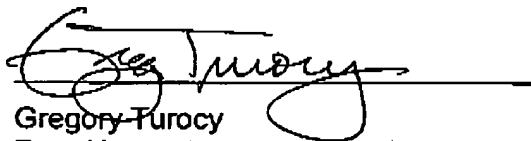
CONCLUSION

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

AMIN & TUROCY, LLP


Gregory Turocy
Reg. No. 36,952

24th Floor, National City Center
1900 East 9th Street
Cleveland, Ohio 44114
(216) 696-8730
Fax (216) 696-8731